

# WELCOME

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## Public Workshop to Discuss Revisions to the Voluntary Accelerated Vehicle Retirement Regulation

March 20, 2006  
Coastal Hearing Room  
9:30 a.m. to 12:00 p.m.

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## Before We Get Started

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- ◆ Webcast communication information
  - Please send questions and comments to:  
Email address: [coastalm@calepa.ca.gov](mailto:coastalm@calepa.ca.gov)

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## Today's Agenda

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- ◆ Staff presentation
  - Introduction
  - Voluntary Accelerated Vehicle Retirement (VAVR)
  - Carl Moyer Program
  - Remote Sensing Devices (RSD)
  - Regulation Revision Questions
  - Voluntary Repair of Vehicles (VRV) Issues
- ◆ Open discussion
- ◆ Next steps

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## Introduction

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- ◆ Purpose of workshop
- ◆ Rule-making process
- ◆ Goals of the proposed revisions
  - Add optional use of remote sensing devices (RSD)
  - Clean-up/clarify regulatory language
- ◆ Not under consideration
  - Voluntary nature of vehicle retirement
  - Vehicle collector provisions

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# The VAVR Program

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## The VAVR Program

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### Background - Emissions

- ◆ Light-duty vehicles are major contributor to ozone and PM pollution
  - 580 tpd ROG and 575 tpd NOx in 2005
  - 21% of ozone precursors
- ◆ Pre-1990 models
  - 19% of population/13% of vehicle miles traveled
  - 57% of ROG/41% of NOx from light-duty vehicles

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# The VAVR Program

## Background - Overview

- ◆ Program elements:
  - Voluntary participation
  - Retires older, more polluting vehicles early through monetary incentives
  - Reduces motor vehicle emissions
  - Administered by air districts/overseen by ARB
  - Complements BAR's vehicle retirement program
- ◆ History:
  - Legislation: Health & Safety Code §44100-44122
  - Regulation: Code of California Regulations, Title 13, §2600-2611

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# The VAVR Program

## VAVR Regulation - Administration

- ◆ ARB: (program oversight)
  - Approve projects
  - Audit districts
- ◆ Districts: (implementation and enforcement)
  - Monitor and audit enterprise operators
  - Verify that the vehicle has been crushed
  - Keep records
- ◆ Enterprise operators: (licensed auto dismantlers)
  - Verify DMV registration and perform inspections
  - Hold the vehicle for possible purchase
  - Crush the vehicle
  - Keep records

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## The VAVR Program

### VAVR Regulation - Car Collector Provisions

- ◆ Legislation requires VAVR programs to be sensitive to car collector concerns
- ◆ 10 day vehicle holding period to allow public opportunity to purchase
  - Entire vehicles or drive train parts may be sold, but no emission reductions claimed
  - Non-emission and non-drive train parts may be recovered from vehicles that are scrapped for credit
- ◆ Staff is not proposing to change these requirements

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## The VAVR Program

### VAVR Regulation – Vehicle Requirements

- ◆ Currently registered by the DMV for at least 120 days in the district
  - Not as strict as Health & Safety Code §44094
  - Will propose correcting this to 24 months
- ◆ Non-tampered
- ◆ Must
  - Operate under its own power
  - Be driven to purchase location
  - Pass functionality and eligibility inspections

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## The VAVR Program

### VAVR Regulation - Emission Reductions

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- ◆ Three year lifetime
- ◆ Calculated using EMFAC and annually updated Reductions =  $[Emissions_{ret} - Emissions_{rep}] \times [Life]$ 

Where:

$Emissions_{ret}$  = ave. emission rate for MY of retired vehicle  
x average VMT for MY of retired vehicle

$Emissions_{rep}$  = ave. emission rate for light-duty fleet  
x average VMT for MY of retired vehicle

Life = 3 years
- ◆ Emission reduction table in 2005 CMP Guidelines

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## The VAVR Program

### VAVR Regulation - Smog Check Status

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- ◆ Emission reductions must be surplus to Smog Check
- ◆ Vehicles must:
  - Not failed Smog Check if within 61 to 90 days of next inspection
  - Passed Smog Check if within 60 days of next inspection
  - Not be operating under a repair cost waiver

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## Carl Moyer Program

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### Carl Moyer Program Background

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- ◆ Provides grants to offset incremental cost of cleaner technology
- ◆ Emission reductions are real, quantifiable, surplus, and enforceable
- ◆ Legislative changes in 2004 included:
  - Added light-duty vehicle retirement and repair projects
  - Provided on-going funding sources
- ◆ Moyer Guidelines adopted in 2005 included VAVR programs

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## Carl Moyer Program Criteria for VAVR Projects

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- ◆ Districts must
  - Submit plan to ARB before starting VAVR projects
  - Report annually to ARB
- ◆ Projects must
  - Comply with all provisions of the VAVR regulation
  - Meet cost-effectiveness limit of \$14,300 per weighted ton of pollutant (ROG + NO<sub>x</sub> + 20PM)
- ◆ ARB to conduct annual reviews

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## Remote Sensing Devices (RSD)

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## Remote Sensing Devices Background

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- ◆ RSD
  - Uses infrared and/or ultraviolet spectroscopy
  - Measures ROG, CO, and NOx concentrations
  - Used at roadside locations such as on-ramps
  - Effective tool for identifying higher emitters
- ◆ Video equipment records vehicle license

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## Remote Sensing Devices Emission Reductions

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- ◆ Retired higher emitting vehicles identified by RSD should be eligible for extra emission reductions
  - Methodology to be developed
- ◆ Data sources
  - South Coast AQMD RSD-VAVR project
  - BAR/ARB RSD study

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## Remote Sensing Devices Challenges

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- ◆ Regulatory procedures must ensure
  - Proper calibration, operation, maintenance
  - Consistent from location to location
  - Standardized data storage, analysis, and interpretation
- ◆ Correlation between RSD readings and in-use grams per mile (g/mi) emissions

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## Regulation Revision Questions

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## Regulation Revisions

### Current Goals

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- ◆ The Proposed Revisions will
  - Focus on permitting the optional use of RSD
  - Define the methodology for calculating extra emission reductions for RSD-identified higher emitting vehicles
  - Change registration requirement from 120 days to 24 months for consistency with the Health and Safety Code
  - Clean up and clarify existing regulatory language
- ◆ ARB Staff Solicits Your Input

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## Regulation Revision Questions

### RSD Operational Protocols

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- ◆ How should regulatory protocols for RSD be specified in regulation?
- ◆ Should dual RSD measurements be required?
- ◆ How recent should a qualifying RSD reading be?
- ◆ How high should an RSD reading be for a vehicle to be considered high emitting?
- ◆ Can RSD reliably determine PM emissions?

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## Regulation Revision Questions

### RSD: Screen tool or emission estimator

- ◆ Can equations be developed to convert RSD reading into g/mi emission rate?
- ◆ Should an ASM Smog Check be required to confirm a fraction of or all RSD-based emission estimates?
  - Are equations relating ASM measurements to g/mi emission rates adequate?
- ◆ What overall confidence level is acceptable for estimating extra emissions?

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## Regulation Revision Questions

### RSD and Smog Check

- ◆ How should RSD extra emission reduction and Smog Check reduction benefits be reconciled?
  - Time to next Smog Check: i.e., assume 1 year or use actual dates
  - Post Smog Check emissions: i.e., average model year, repaired to ASM cut points, other

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## Regulation Revision Questions

### RSD Emission Reduction Benefits

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- ◆ Should credit life remain at the three year default?
- ◆ How should emission benefits be determined for vehicles highly emitting only one pollutant?
- ◆ Should evaporative emission reductions be included, and if so, using what methodology?

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## Voluntary Repair of Vehicles (VRV) Issues

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## Voluntary Repair of Vehicles

### Concepts to Consider

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- ◆ Regulation or Carl Moyer Program Guidelines
- ◆ Program entry requirements
- ◆ Calculating emission reductions
  - Pre/post ASM Smog Check tests
  - Avoid double counting Smog Check/normal repair
  - Credit life
- ◆ Program design
  - Repair cost limits
  - Customer repair cost sharing
  - Repeat customers
  - Cash or vouchers

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## Discussion and Public Comment

Email address: [coastalm@calepa.ca.gov](mailto:coastalm@calepa.ca.gov)

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## Next Steps

### VAVR Regulation Update Schedule

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- ◆ Written comments by April 28, 2006
- ◆ Next workshop scheduled for Summer 2006
  - More details on regulatory concepts
  - Possible preliminary draft regulatory language
- ◆ Fall workshop on proposed regulatory language
- ◆ Adoption hearing scheduled for December 2006
- ◆ For more information, visit the VAVR web page:  
[www.arb.ca.gov/msprog/avrp/avrp.htm](http://www.arb.ca.gov/msprog/avrp/avrp.htm)

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## Contact Information

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- ◆ Please contact the following staff to share your input:
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